

What is claimed is;

1. A camera comprising:

an image-capturing element that captures a subject image through a photographic lens;

5 a first filter device that removes a frequency component equal to or lower than a first frequency from image-capturing signals obtained at pixels corresponding to a focus area of the image-capturing element;

a second filter device that removes from the  
10 image-capturing signals a frequency component equal to or lower than a second frequency which is higher than the first frequency;

a lens drive signal generation device that generates a lens drive signal used to move a focus lens;

15 an evaluation value calculation device that calculates integrating values of first image-capturing signals from which the frequency component has been removed at the first filter device and integrating values of second image-capturing signals from which the frequency component has been removed  
20 at the second filter device, each in correspondence to a predefined position of the focus lens;

a lens position calculation device that calculates a focus match lens position based upon one of a set of the integrating values of the first image-capturing signals and  
25 a set of the integrating values of the second image-capturing

signals calculated by the evaluation value calculation device;  
and

a determination device that makes a true/false decision with regard to a focus match position, calculated by the lens position calculation device, based upon a change manifested by the integrating values of the first image-capturing signals and a change manifested by the integrating values of the second image-capturing signals between predefined positions taken by the focus lens.

10

2. A camera according to claim 1, wherein:

the determination device determines that the focus match position, calculated by the lens position calculation device is a true focus match position when a ratio between; (a) the change manifested by the integrating values of the first image-capturing signals between a first lens position corresponding to a largest value among the integrating values of the first image-capturing signals and a second lens position next to the first lens position and (b) the change manifested by the integrating values of the second image-capturing signals between the first lens position and the second lens position is equal to or greater than a preset determination threshold value.

25 3. A camera according to claim 1, wherein:

the determination device determines that the focus match position calculated by the lens position calculation device is a true focus match position when (A) the change manifested by the integrating values of the first image-capturing signals between a first lens position corresponding to a largest value among the integrating values of the first image-capturing signals and a second lens position next to the first lens position indicates a value equal to or greater than a predetermined value and (B) a ratio of the change manifested by the integrating values of the first image-capturing signals between the first lens position and the second lens position and the change manifested by the integrating values of the second image-capturing signals between the first lens position and the second lens position is equal to or greater than a preset determination threshold value.

4. A camera according to claim 1, wherein:

the determination device judges that the focus match position calculated by the lens position calculation device is a false focus match position when (1) the change manifested by the integrating values of the first image-capturing signals between a first lens position corresponding to a largest value among the integrating values of the first image-capturing signals and a second lens position next to the first lens position indicates a value smaller than a first predetermined

value and (2) the change manifested by the integrating values of the first image-capturing signals between the second lens position and a third lens position next to the second lens position indicates a value smaller than a second predetermined value which is greater than the first predetermined value.

5     5.     A camera according to claim 2, wherein:  
          the first lens position corresponds to a closeup end of a range over which the focus lens is allowed to move.

10

6.     A camera according to claim 3, wherein:  
          the first lens position corresponds to a closeup end of a range over which the focus lens is allowed to move.

15    7.     A camera according to claim 4, wherein:  
          the first lens position corresponds to a closeup end of a range over which the focus lens is allowed to move.